

We claim:

1. A conductive polymer blend comprising of a major amount of a polyketone polymer and a minor amount of a conducting organic polymer as additive.
2. A conductive polymer blend as claimed in claim 1 wherein the polyketone polymer is a linear alternating polymer of carbon monoxide and at least one ethylenically unsaturated hydrocarbon.
3. A conductive polymer blend as claimed in claim 1 wherein the polyketone polymer is a polymer of the general formula — [—CO — (P) —]_n — [CO — (Q) —]_m where n and m are both > 0 and P and Q independently consist of unsaturated hydrocarbons.
4. A conductive polymer blend as claimed in claim 3 wherein unsaturated hydrocarbons used are selected from the group consisting of ethylene and other α -olefins such as propylene, 1 - butene, 1 - hexene and 1 - dodecene, unsaturated hydrocarbons with an aryl substituent on an otherwise aliphatic molecule particularly, with an aliphatic or aryl substituent on the carbon atom of the ethylene unsaturation such as styrene, 4 - methylstyrene and 4 - ethylstyrene, compounds comprising one or more heteroatoms such as vinyl acetate, methyl methacrylate and acrylonitrile, copolymers such as (ethylene — CO)_n, (propylene — CO)_n and (styrene — CO)_n, ter-polymers such as [(ethylene — CO)_n — (propylene — CO)_m]
5. A conductive polymer blend as claimed in claim 4 wherein in the case of ter-polymers, the individual — (—P—CO—) — and — (—Q—CO—) — units are randomly distributed throughout the polymer chain.
6. A conductive polymer blend as claimed in claim 3 wherein the ethylenically unsaturated hydrocarbon is selected from the group consisting of ethylene, propylene, styrene, hexene, 1 - butene and norbornadiene.
7. A conductive polymer blend as claimed in claim 1 wherein the conducting polymer additive is selected from the group consisting of substituted or unsubstituted polyanilines, polyacetylenes, polyvinylpyrrolidine, polyazines, polythiophenes, polyphenylene sulfides and polyselenophenes.
8. A conductive polymer blend as claimed in claim 7 wherein the conducting organic polymer used is doped with any one of onium salts, iodonium salts, borate salts, organic or inorganic acids or their salts.
9. A process for the preparation of a conductive polymer blend comprising of a major amount of polyketone polymer and a minor amount of a conducting organic polymer

additive, said process comprising incorporating the conducting material into the polyketone matrix to uniformly diffuse it therein.

10. A process as claimed in claim 9 wherein the blends are prepared by incorporating the conducting organic polymer additive by melt mixing or solution mixing.
11. A process as claimed in claim 9 wherein the polyketone polymer is a linear alternating polymer of carbon monoxide and at least one ethylenically unsaturated hydrocarbon.
12. A process as claimed in claim 9 wherein the polyketone polymer is a polymer of the general formula — [—CO — (P —) —]_n — [CO — (Q) —]_m where n and m are both >0 and P and Q independently consist of unsaturated hydrocarbons.
13. A process as claimed in claim 12 wherein the unsaturated hydrocarbons used are selected from the group consisting of ethylene and other α -olefins such as propylene, 1 — butene, 1 — hexene and 1 — dodecene, unsaturated hydrocarbons with an aryl substituent on an otherwise aliphatic molecule particularly, with an aliphatic or aryl substituent on the carbon atom of the ethylene unsaturation such as styrene, 4 — methylstyrene and 4 — ethylstyrene, compounds comprising one or more heteroatoms such as vinyl acetate, methyl methacrylate and acrylonitrile, copolymers such as (ethylene — CO)_n, (propylene — CO)_n and (styrene — CO)_n, ter-polymers such as [(ethylene — CO)_n — (propylene — CO)_m].
14. A process as claimed in claim 13 wherein in the case of ter-polymers, the individual — (—P—CO—) — and — (—Q—CO—) — units are randomly distributed throughout the polymer chain.
15. A process as claimed in claim 12 wherein the ethylenically unsaturated hydrocarbon is selected from the group consisting of ethylene, propylene, styrene, hexene, 1 — butene and norbornadiene.
16. A process as claimed in claim 9 wherein the conducting polymer additive is selected from the group consisting of substituted or unsubstituted polyanilines, polyacetylenes, polyvinylpyrrolidine, polyazines, polythiophenes, polyphenylene sulfides and polyselenophenes.
17. A process as claimed in claim 16 wherein the conducting organic polymer used is doped with any one of onium salts, iodonium salts, borate salts, organic or inorganic acids or their salts.